

Serial Number 10/712,825
Attorney Docket No. IPE-1/N1182-1

REMARKS

1. Claims 1, 3-95, 97-115, 117-126, 129-135 and 156-159 are pending and stand rejected. This paper amends claims 1, 10, 12-14, 17, 28, 30, 34, 36, 38, 40, 42, 90, 112, and 132; cancels claims 6-9, 11, 21, 24-27, 33, 48, 51, 54, 98, 99, 103, 120, 121, 125, 126, and 156-159; and adds claims 160-173.

Reconsideration of this application is respectfully requested.

2. Claims 1, 3-12, 17-20, 22, 24-26, 36-74, 81-92, 97-101, 109-114, 119-123, and 131-135 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,295,654 to Farrell in view of U.S. Patent 6,321,386 to Monica. This rejection is respectfully traversed.

Independent claim 1 recites, inter alia,

“...a cushioning pad fastened to the shell assembly, the cushioning pad comprising a laminate including at least one impact absorbing layer comprising a foam material which allows air to flow therethrough, an outer fabric layer that reflects heat and an inner fabric layer that allows air to flow therethrough, wherein the outer fabric layer faces toward the shell assembly and comprises a light color.”

Independent claim 10 recites, inter alia,

“...a cushioning pad fastened to the shell assembly, the cushioning pad comprising an impact absorbing laminate including at least one substrate of reticulated foam allowing air to flow therethrough and at least one substrate of foam beads allowing air to flow therethrough.”

Independent claims 90 and 112 each recite, inter alia,

“...a laminate including at least one impact absorbing layer comprising a foam material that allows air to flow therethrough, an outer fabric layer that reflects heat and an inner fabric layer that allows air to flow therethrough, wherein the outer fabric layer comprises a light color.”

In contrast, Farrell describes a protective garment 10 formed by a plurality of protective elements 20. Each protective element is constructed with a layer 30 of a rigid polymer material, a layer 32 of cushioning resilient material, and a moisture resistant layer 34 such as

Serial Number 10/712,825
Attorney Docket No. IPE-1/N1182-1

COOLMAX®. The rigid polymer layer 30 and the moisture resistant layer 34 are each covered with a fabric layer 24.

Farrell teaches in column 3, lines 62-65 that the layer 32 of cushioning resilient material is preferably made of closed cell foam so that it does not absorb moisture:

The middle layer 32 is comprised of cushioning resilient material such as LD 80 closed cell foam. Closed cell foam is preferred because of its resistance to fluid absorption. that the fabric layers 24 reflect heat.

The bores 36 in the closed cell foam 32 of Farrell do not change the fact that the closed cell foam taught by Farrell is not an air flowing foam, as required by claims 1, 10, 90, and 112.

Further, although the Examiner continues to erroneously contend that the moisture resistant layer 34 is an impact absorbing foam layer, Farrell does not support this contention, as Farrell teaches in column 4, lines 1-6:

The innermost layer 34, nearest the wearer, is of a moisture resistant material such as "COOLMAX" ®. This layer provides additional resistance to moisture by dispersing moisture away from the middle foam layer and to the fabric layers 24 between cells 12 where the mesh network promotes air circulation and evaporation.

In addition, the COOLMAX® website (<http://coolmax.invista.com/>) states that COOLMAX® is a fabric.

Thus, Farrell does not teach or suggest the subject matter of independent claims 1, 10, 90, and 112.

The addition of Monica fails to cure the deficiencies of Farrell. This is because Monica does not teach or suggest the "outer fabric layer faces toward the shell assembly and comprises a light color" of independent claim 1; the "impact absorbing laminate including at least one substrate of reticulated foam allowing air to flow therethrough and at least one substrate of foam beads allowing air to flow therethrough" of independent claim 10; and "the outer fabric layer comprises a light color" of independent claims 90 and 112, which are missing in Farrell. Monica merely teaches that open cell foam, such as urethane, may be used in shoulder pad manufacturing and a heat deflecting system of foil.

Serial Number 10/712,825
Attorney Docket No. IPE-1/N1182-1

The Examiner's apparent contention that the outer fabric of Farrell in view of Monica may be formed of any desired material which was available at the time of invention or as required for a particular application thereof, is unsupported by the cited prior art of record.

Hence, it has been shown that independent claims 1, 10, 90, and 112 are allowable over Farrell in view of Monica.

With respect to remaining dependent claims 3-5, 12, 17-20, 22, 46, 47, 49, 50, 52, 53, 55-74, 81-89, 91, 92, 97, 100, 101, 109-111, 113, 114, 119, 122, 123, and 131-135, which recite additional features of the invention, it is urged that these claims are allowable over Farrell in view of Monica for at least the same reasons as stated for independent claims 1, 10, 90, and 112.

With respect to remaining dependent claims 36-45, these claims now depend directly or indirectly from independent claim 34, which is not included in this rejection. Claim 34 requires, among other features, "at least three impact absorbing layers comprising at least one substrate of visco-elastic polymer." Farrell in view of Monica fail to teach or suggest this feature, therefore, it is urged that dependent claims 36-45 are allowable over Farrell in view of Monica for at least this reason.

The Examiner's contention that the claimed colors are a matter of design choice is also unsupported by the cited prior art of record. The specification of the present application teaches that the claimed black color of the reticulated foam allows it to absorb heat generated by the user's body. Farrell in view of Monica do not teach or suggest the desirability or address the problems overcome by using a black color foam in a protective garment. Accordingly, it would not have been obvious as a matter of design choice to use black foam in the protective garment of Farrell in view of Monica.

The specification of the present application teaches that the claimed light colored outer fabric layer facing toward the shell allows the fabric to reflect heat away from the user's body. Farrell in view of Monica do not teach or suggest the desirability or address the problems overcome by using a light colored outer fabric layer facing toward the shell in a protective garment. Accordingly, it would not have been obvious as a matter of design choice to use a light colored outer fabric layer in the protective garment of Farrell in view of Monica.

The specification of the present application teaches that the claimed dark colored inner fabric layer facing away from the shell absorbs heat generated by the user's body. Farrell in view of Monica do not teach or suggest the desirability or address the problems overcome by using a

Serial Number 10/712,825
Attorney Docket No. IPE-1/N1182-1

dark colored inner fabric layer facing away from the shell in a protective garment. Accordingly, it would not have been obvious as a matter of design choice to use a dark colored inner fabric layer in the protective garment of Farrell in view of Monica.

The specification of the present application teaches that the claimed pearlized white metallic shell assembly reflects heat and reduces the amount of heat absorbed by the shell assembly. Farrell in view of Monica do not teach or suggest the desirability or address the problems overcome by using a pearlized white metallic shell assembly in a protective garment. Accordingly, it would not have been obvious as a matter of design choice to use a pearlized white metallic shell assembly in the protective garment of Farrell in view of Monica.

Many of the features recited by the dependent claims grouped into this rejection are not taught or suggested by Farrell in view of Monica and are not specifically addressed by the Examiner in this rejection. A non-exhaustive list of the features include the first and second shell assembly halves connected by a first protector plate (claims 56 and 62) or a second protector plate (claim 58 and 64); the functionality provided by the protector plates (claims 57, 58, 63 and 65); the belt strap system recited in claim 67; the reticulated foam (claims 91 and 113); a lower shoulder panel fastened to an inner shoulder area by two straps that cross one another, (claims 81 and 82); protector panels comprising ventilation holes (claim 83); protector panels that can be individually replaced with a protector panel having one of at least a different predetermined size and a different predetermined shape (claims 84 and 86); or cushioning pads individually replaceable with a cushioning pad having at least one of a different predetermined size and a different predetermined shape (claims 87-89).

It is respectfully submitted that the absence of the dependent claim features in Farrell in view of Monica amounts to the taking of "official notice" of these features. Official notice unsupported by documentary evidence should only be taken where the facts asserted to be well-known are capable of instant and unquestionable demonstration as to defy dispute. See *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970).

It is the Applicant's position that these features are not capable of instant and unquestionable demonstration as to defy dispute. Therefore, it is respectfully requested that the Examiner provide a reference or references in the next Office Action, which support the Examiner's taking of official notice of same or allow the corresponding claims.

In view of the foregoing, withdrawal of this rejection is respectfully urged.

Serial Number 10/712,825
Attorney Docket No. IPE-1/N1182-1

3. Claims 13-16, 21, 23, 27-35, 52-54, 75-80, 93-95, 102-108, 115, 117, 118, 124-126, 129, 130 and 156-159 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell in view of Monica and further in view of U.S. Patent 6,453,477 to Bainbridge et al. (Bainbridge). This rejection is respectfully traversed.

Independent claim 34 recites, inter alia,

“...the at least three impact absorbing layers comprising at least one substrate of visco-elastic polymer.”

Independent claim 107 recites, inter alia,

“...a laminate comprising a first impact absorbing layer that allows air to flow therethrough and a second impact absorbing layer comprising at least one substrate of visco-elastic polymer.”

Farrell in view of Monica do not teach or suggest the claimed substrate of visco-elastic polymer. Bainbridge fails to cure this deficiency of Farrell in view of Monica as Bainbridge does not teach or suggest an impact absorbing layer comprising a substrate of visco-elastic polymer. Thus, independent claims 34 and 107 are allowable over Farrell in view of Monica and further in view of Bainbridge.

The Examiner has not addressed the absence of the visco-elastic polymer substrate feature in the cited prior art and Applicant's arguments regarding same in any of the Office Actions. It is respectfully submitted that the absence of this feature in the cited prior art amounts to the taking of “official notice” of same. Therefore, it is respectfully requested that the Examiner provide a reference or references in the next Office Action, which support the Examiner's taking of official notice of same or allow the claims 34 and 107 and their respective dependent claims 35-45 and 108.

Remaining dependent claims 13-16, 23, 28-32, 52-54, 75-80, 93-95, 104-106, 115, 117, 118, 124, and 129 are allowable over Farrell in view of Monica for the same reasons as stated above regarding their respective independent claims 1, 10, 90 and 112.

Bainbridge fails to cure the deficiencies of Farrell in view of Monica, as there is no motivation for modifying the protective garment of Farrell in view of Monica with the breathable foam taught by Bainbridge. More specifically, Farrell teaches away from using the breathable

Serial Number 10/712,825
Attorney Docket No. IPE-1/N1182-1

foam (that allows moisture to pass freely therethrough) taught by Bainbridge. In particular, Farrell states in column 3, lines 62-65:

The middle layer 32 is comprised of cushioning resilient material such as LD 80 closed cell foam. Closed cell foam is preferred because of its resistance to fluid absorption. that the fabric layers 24 reflect heat.

and Farrell teaches in column 4, lines 1-6:

The innermost layer 34, nearest the wearer, is of a moisture resistant material such as "COOLMAX" @. This layer provides additional resistance to moisture by dispersing moisture away from the middle foam layer and to the fabric layers 24 between cells 12 where the mesh network promotes air circulation and evaporation.

Thus, there is no motivation for using the breathable foam taught by Bainbridge in the protective garment of Farrell in view of Monica. For at least this reason, remaining dependent claims 13-16, 23, 28-32, 52-54, 75-80, 93-95, 104-106, 115, 117, 118, 124, and 129 are allowable over Farrell in view of Monica and further in view of Bainbridge.

Claims 75-80, which require a spring element for strengthening an inner shoulder portion of the shell assembly, have also been grouped into this rejection without explanation. Farrell in view of Monica do not teach or suggest such a spring element. Bainbridge also fails to cure this deficiency of Farrell in view of Monica, as Bainbridge does not teach or suggest a spring element for strengthening an inner shoulder portion of the shell assembly. Thus, claims 75-80, contain addition subject matter which makes them clearly allowable over Farrell in view of Monica and further in view of Bainbridge.

The Examiner has also not addressed the absence of the spring element feature in the cited prior art and Applicant's arguments regarding same in any of the Office Actions. It is respectfully submitted that the absence of this feature in the cited prior art amounts to the taking of "official notice" of same. Therefore, it is respectfully requested that the Examiner provide a reference or references in the next Office Action, which support the Examiner's taking of official notice of same or allow the claims 75-80.

In view of the foregoing, withdrawal of this rejection is respectfully urged.

Serial Number 10/712,825
Attorney Docket No. IPE-1/N1182-1

4. It is respectfully submitted that new claims 160-173 recite subject matter which is not disclosed, taught or suggested by the cited prior art of record. Accordingly, claims 160-173 are allowable.

5. Favorable reconsideration of this application is respectfully requested as it is believed that all outstanding issues have been addressed herein and, further, that the claims are in condition for allowance. Should there be any questions or matters whose resolution may be advanced by a telephone call, the examiner is cordially invited to contact applicants' undersigned attorney at his number listed below.

6. The Commissioner is hereby authorized to charge payment of any filing fees required under 37 CFR 1.16 and any patent application processing fees under 37 CFR 1.17, which are associated with this communication, or credit any overpayment to Deposit Account No. 50-2061.

Respectfully submitted,



Paul A. Schwarz
Reg. No. 37,577

Duane Morris LLP
P.O. Box 5203
Princeton, New Jersey 08543-5203
Tel: (609) 631-2446
Fax: (609) 631-2401